

1" Delrin

**Work Order ID 103893**

\*103893\*

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Wednesday, July 03, 2013 12:37:53 PM

Reference: \_\_\_\_\_

Approvals: Process Plan: C2 Date: 13/07/03 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3183	Rev C1								
100 <b>*100*</b> Hardinge	Hardinge CNC LATHE SMALL  Memo Hardinge CNC Lathe Small	0.00  0.00	<del>2</del> <del>DAS</del> <del>44</del> <del>9-89</del>	13/07/08		40	0		
110 <b>*110*</b> QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo	0.00  0.00	<del>2</del> <del>DAS</del> <del>44</del> <del>9-89</del>	13/07/08		40	0		
120 <b>*120*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00	<i>b.a</i>	13/07/13		40	0		DAS: 08 9-89

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Item ID: D3183-045

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Bearing Assembly

Stop

\*NS2\*

Start Date: 7/3/2013 Start Qty: 40.00

\*40\*

Cust Item ID:

Required Date: 7/15/2013 Req'd Qty: 40.00

\*40\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

\*130\*

Small Fab

0.00

41X

BB/07/15

Small Fab

Memo

0.00

Press D3183-5 Bearing into D3183-9 Cap as per Dwg D3183.

140

\*140\*

QC5- Inspect part completeness to step on W/O

0.00

41  
B715

QC

Memo

0.00

41  
C715

Quality Control

150

\*150\*

Identify as per dwg & Stock Location: ST235B 0.00

0.00

Packaging

Memo

41X

7/13-07-15

Packaging

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Wednesday, July 03, 2013 12:37:53 PM

Item ID:	D3183-045	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:					Stop	*NS2*	
Item Name:	Bearing Assembly						
Start Date:	7/3/2013	Start Qty: 40.00	*40*	Cust Item ID:			
Required Date:	7/15/2013	Req'd Qty: 40.00	*40*	Customer:			
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 <b>*160*</b> QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							13/7/17 80 MF 13-7-16



DART AEROSPACE LTD	Work Order:	103873
Description: Cap	Part Number:	D3183-9
Inspection Dwg: D3183	Rev: C1	Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

## X First Article      Prototype

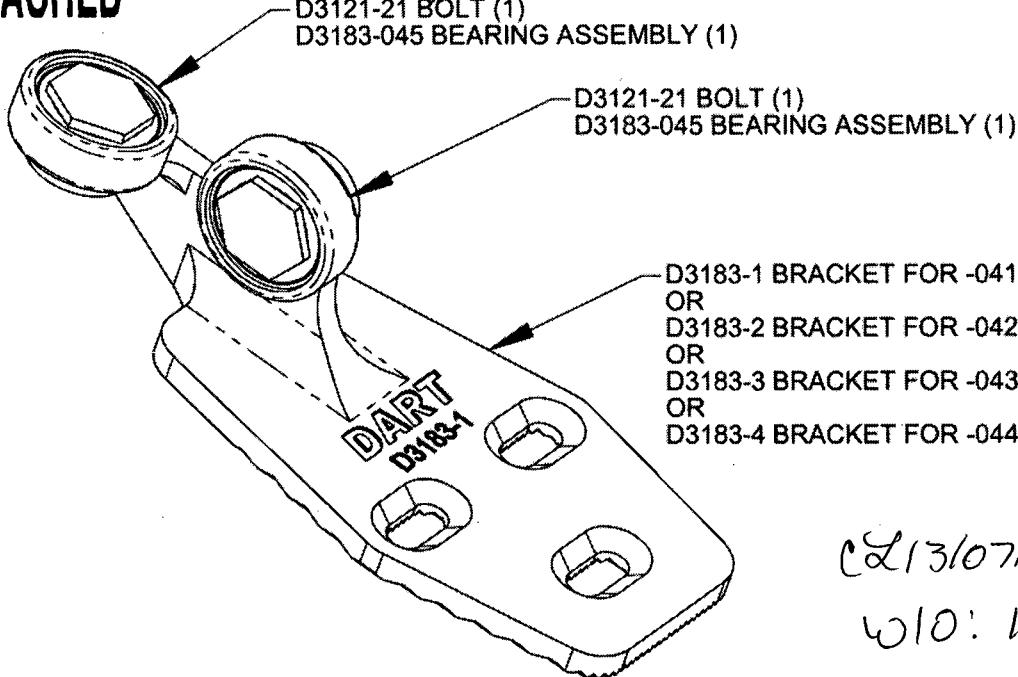
Measured by:	<u>DAS</u> <u>44</u> <u>9-89</u>	Audited by:	<u>M.A</u> <u>DAS</u> <u>08</u>	Prototype Approval:	N/A
Date:	<u>13/07/08</u>	Date:	<u>13/07/08</u>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.04.20	New Issue (P/O D3183-045)	KJ/RF	
B	06.03.09	Dimension Ø0.830 was Ø0.850	KJ/JLM	<i>[Signature]</i>

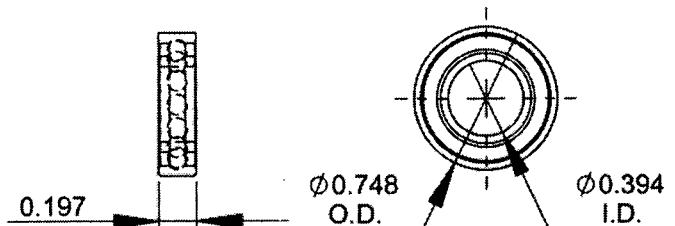
**DART**

DRAFT

DESIGN	DRAWN BY	DART AEROSPACE LTD	
CHECKED	APPROVED	DRAWING NO.	REV. C
		D3183	SHEET 1 OF 4
DATE	04.02.17	TITLE	SCALE
		BRACKET ASSEMBLY	1:1

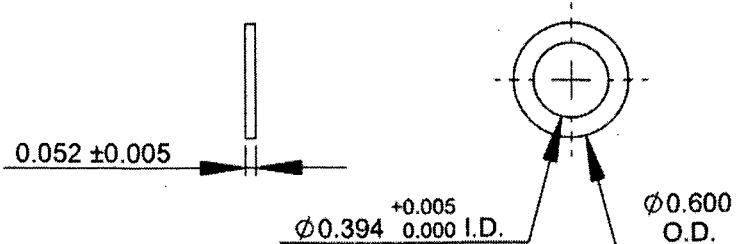
**RELEASED**  
04.03.01**DEO ATTACHED**

**D3183-041 BRACKET ASSEMBLY (SHOWN)**  
**D3183-042 BRACKET ASSEMBLY (OPPOSITE)**  
**D3183-043 BRACKET ASSEMBLY (SIMILAR)**  
**D3183-044 BRACKET ASSEMBLY (SIMILAR)**



#### **D3183-5 BEARING: SPECIFICATION CONTROL DRAWING**

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



#### **D3183-7 WASHER**

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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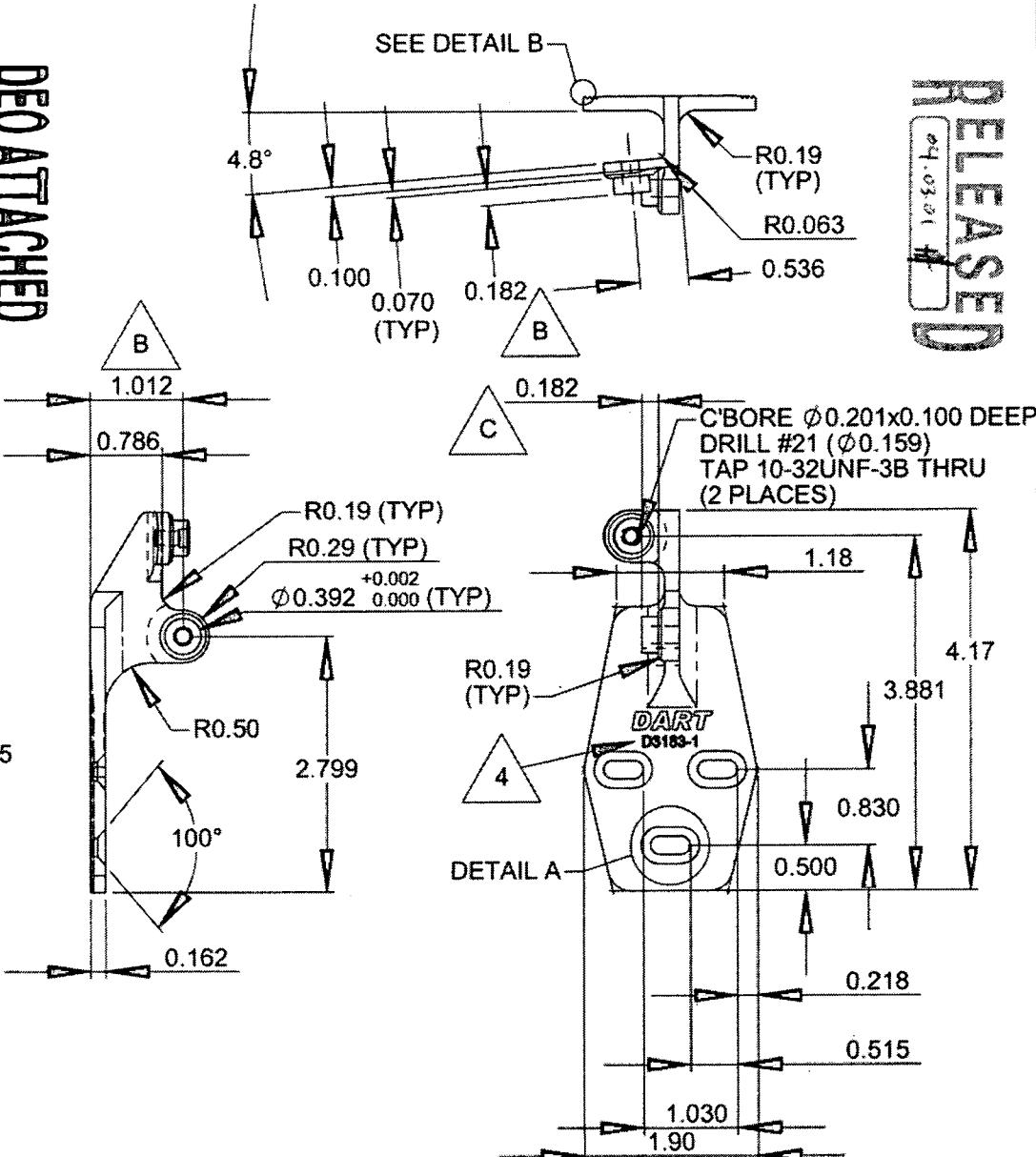
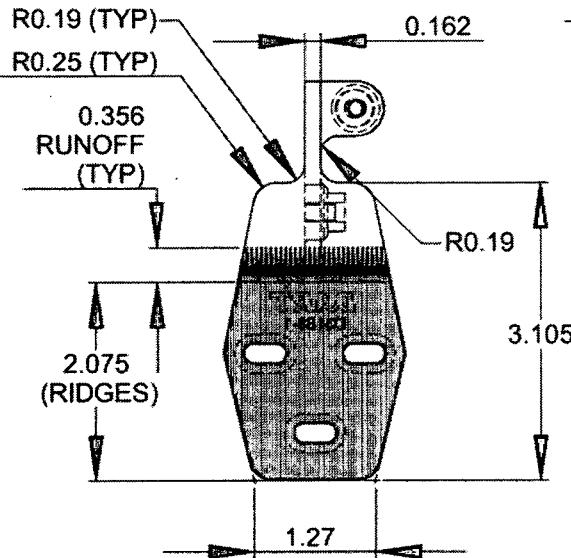
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CHECKED	APPROVED	DRAWING NO. D3183
DATE	04.02.17	TITLE BRACKET ASSEMBLY
		REV. C SHEET 2 OF 4 SCALE 1:2

**RELEASED**

04.03.01

**DET ATTACHED**

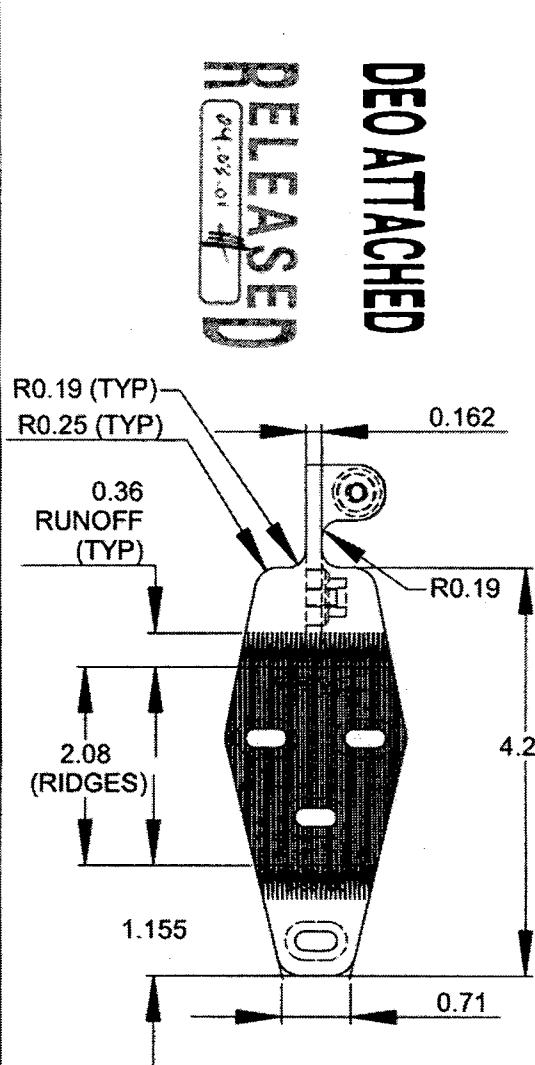


**D3183-1 BRACKET SHOWN  
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3  
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS  
OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

**RELEASED**  
R 04.02.17-01

**DEO ATTACHED**



**D3183-3 BRACKET SHOWN**  
(REPLACES BELL P/N 412-030-304-105)

**D3183-4 BRACKET OPPOSITE**  
(REPLACES BELL P/N 412-030-304-106)

1) MATERIAL: 17-4 SS PER AMS 5604/5643

(REF DART SPEC. M17-4-B)

MIN ULTIMATE STRENGTH = 150 ksi

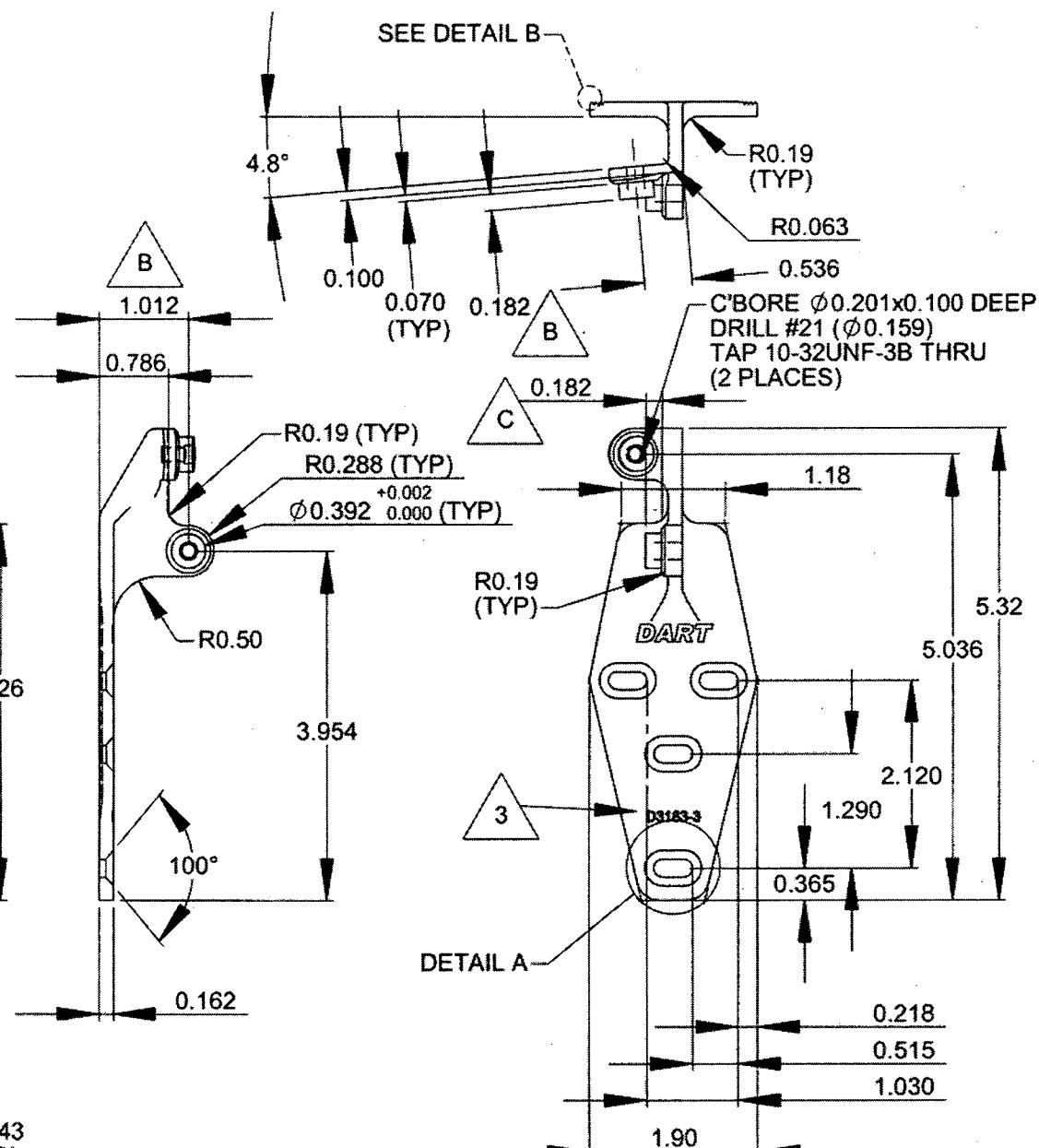
MIN YIELD STRENGTH = 100 ksi

2) BREAK ALL SHARP EDGES 0.005 TO 0.015

3) ENGRAVE DART P/N & LOGO AS SHOWN

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES



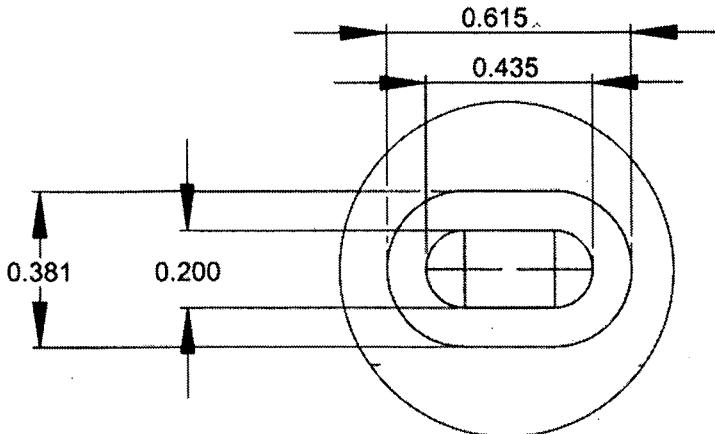
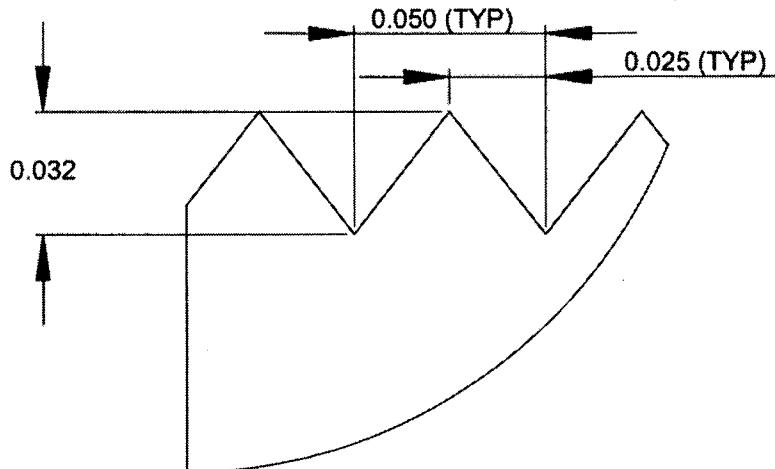
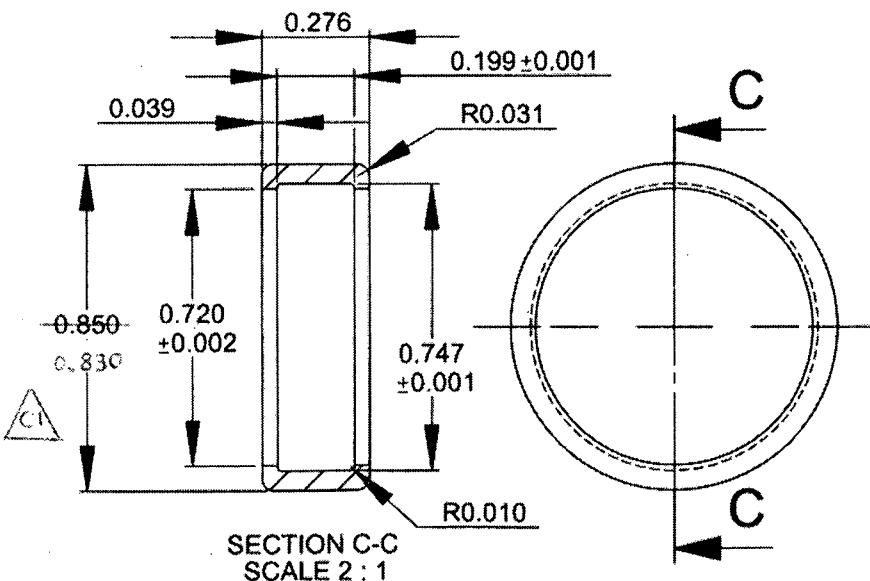
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		HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
		D3183
DATE	04.02.17	TITLE
		BRACKET ASSEMBLY
		SCALE
		1:2
		SHEET 3 OF 4
		REV. C

**DART**

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DESIGN	DRAWN BY	DART AEROSPACE LTD	
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA	
DATE	04.02.17	DRAWING NO.	D3183
		REV. C	SHEET 4 OF 4
		SCALE	1:1

DETAIL A (2 : 1)**RELEASED**  
04.03.01**DEO ATTACHED**DETAIL B (20 : 1)SECTION C-C  
SCALE 2 : 1**D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00 (REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

**D3183-045 BEARING ASSEMBLY**

- 1) ASSEMBLE D3183-5 BEARING AND D3183-9 CAP

DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV.C1	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>q</i>	CHECKED <i>✓</i>		MFG. APPR. <i>AA</i>	APPROVED <i>MP</i>	DE APPR. <i>MP</i>	
DATE 10.05.14	DATE 10.06.30		DATE 10.06.30	DATE 10/06/30	DATE 10/06/30	

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]  
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

RELEASED  
2010-07-22  
*MP*